Herschel Observations of Debris Disks from WISE

Padgett, D. L.¹; Stapelfeldt, K. R.¹; Liu, W.², Leisawitz, D. T.¹, Fajardo-Acosta, S.²

¹ NASA/Goddard Space Flight Center, ² Infrared Processing and Analysis Center, Caltech,

The Wide Field Infrared Survey Explorer (WISE) has just completed a sensitive all-sky survey in photometric bands at 3.4, 4.6, 12, and 22 microns. We report on a study of main sequence Hipparcos and Tycho catalog stars within 120 pc with WISE 22 micron emission in excess of photospheric levels. This warm excess emission traces material in the circumstellar region likely to host terrestrial planets and is preferentially found in young systems with ages < 1 Gyr. Nearly a hundred of the WISE new warm debris disk candidates detected among FGK stars are being observed by Herschel/PACS to characterize circumstellar dust. Preliminary results indicate 70 micron detection rates in excess of 80% for these targets, suggesting that most of these systems have both warm and cool dust in analogy to our asteroid and Kuiper belts. In this contribution, we will discuss the WISE debris disk survey and latest results from Herschel observations of these sources.